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CONTINENTAL LIME INC.

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CRICKET MOUNTAIN QUARRY  
Millard County, Utah

**MINING & RECLAMATION PLAN**  
with Amendments

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M/027/006

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Revised February 1992



State of Utah  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS AND MINING

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Governor

Ted Stewart  
Executive Director

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M/027/006  
Plan copy

October 15, 1993

TO: Board of Oil, Gas and Mining

THRU: Lowell Braxton Associate Director, Mining *LB*

FROM: D. Wayne Hedberg, Permit Supervisor *DWH*

RE: Request for Board Approval of Form and Amount of Surety, Permit Revision, Continental Lime Incorporated, Cricket Mountain Quarry, M/027/006, Millard County, Utah

Continental Lime Inc. originally filed a Notice of Intent to Commence Mining Operations with the Division of Oil, Gas and Mining in November of 1979. The Notice was approved by the Division on January 6, 1991. Since that time, the Mining and Reclamation Plan (MRP) has undergone a series of minor revisions/amendments. The last revision was made in 1990, which increased the disturbed area to 86 acres, and a \$179,000 reclamation bond was posted with the Division. The current permit revision brings the proposed surface disturbance to 169 acres. Continental Lime Inc. has subsequently provided the Division with a replacement surety bond in the amount of \$293,100 (1998\$). The surety company is listed on the 1993 Federal Register as a company holding certificate of authority as acceptable sureties on federal bonds.

The Division granted Tentative Approval of this permit revision in August of 1992. A 30-day public comment period was initiated in September of 1992. The Resource Development Coordinating Committee (RDCC) was also notified in September of 1992. No public comments were received by the Division concerning the tentative approval notice. Comments from RDCC were forwarded to the operator and subsequently incorporated into the MRP.

Please find the following information attached for your review and consideration:

1. Summary Checklist
2. Executive Summary
3. Location Map
4. Reclamation Surety Estimate
5. Reclamation Contract
6. Joint Agency Surety

Thank you for your time and consideration of this request.

jb  
Attachments  
M027006.brd



DOGM MINERALS PROGRAM

Checklist for Board Approval  
of  
FORM AND AMOUNT OF SURETY

Prepared October 14, 1993

Company Name Continental Lime Inc.  
 Mine Name Cricket Mountain Quarry  
 File No. M/027/006

Items	Provided		Remarks
	Yes	No	
Executive Summary	X		
Location Map	X		
Reclamation Bond Estimate	X		
Signed Reclamation Contract	X		
Signed Power of Attorney/ Affidavit of Qualification	X		
Bond/Reclamation Surety	X		
Surety Sign Off (Other State/Federal Agencies)	X		Joint Agency Surety (DOGM/BLM) received \$\$ amount is higher than BLM regs require

## EXECUTIVE SUMMARY

Prepared October 12, 1993

Mine Name: <u>Cricket Mountain Quarry</u>	I.D. No: <u>M/027/006</u>
Operator: <u>Continental Lime Incorporated</u>	County : <u>Millard</u>
<u>P. O. Box 669</u>	New/Existing: <u>Existing (original approval-1/6/81)</u>
<u>Delta, Utah 84624</u>	Mineral Ownership: <u>BLM/State/patented lands</u>
	Surface Ownership: <u>BLM/State/patented lands</u>
Telephone: <u>(801) 864-3823</u>	Lease No.(s): <u>ML-355572</u>
Contact Person: <u>Russell Dobson</u>	Permit Term: <u>Life of mine</u>

Life of Mine: 1999 (unless additional reserves permitted)

Legal Description: SE1/4 and SW1/4 Section 25, NE1/4 and NW1/4 Section 36, Township 21 South, Range 10 West, SLB&M, Millard County, Utah

Mineral(s) to be Mined: High-grade calcium limestone

Mining Methods: Conventional bench type mining methods using drill and blast procedures to produce quarry run sized limestone.

Acres to be Disturbed: 169 acres proposed

Present Land Use: wildlife habitat, livestock grazing, recreation, and mining

Postmining Land Use: same as above

Variances from Reclamation Standards (Rule R647) Granted: R647-4-111(7) Highwalls, R647-4-111(8) Roads

### Soils and Geology:

Soil Description: Lithic Xerollic Calciorthids - Xerollic Calciorthids Association, mildly - strongly alkaline, and range from stony - sandy loams. Well - somewhat excessively well-drained, permeability - moderate to rapid, runoff - medium to very rapid, and sediment production - moderate

pH: 8.4 - 8.6

Special Handling Problems: Desert soils, composed of silty clays and fine sandy silts, exist at the mine site, and do not pose any special handling problems. However, due to the rocky nature of the site, few native soils have been salvaged for the purpose of revegetation. Fines produced from the crushing of limestone will be used for the reconstruction of soils, over portions of the site.

**Geology Description:** Geology at the site consists of: alluvial and colluvial sands and gravels, shales and low-grade limestone, and high grade limestone. The sand and gravel material is a Quaternary Age lake terrace deposit. The shales and limestones are of the Cambrian Age and are divided into four units: Marjum Formation, Swasey limestone, Whirlwind formation, and Dome Limestone.

**Hydrology:**

**Ground Water Description:** Ground water is encountered at approximately 600 feet below the lowest elevation at the quarry. The quality of the water is very poor. It is saline and is used for dust control and some applications at the processing plant.

**Surface Water Description:** No surface water is found in the immediate vicinity of the proposed quarry or any of the associated facilities. Runoff from rain and snow melt follows the drainage of the normally dry Beaver River. North of the Cricket Mountains this drainage joins the Sevier River approximately 20 miles from the inlet to Sevier dry lake, a 200,000 acre mud flat.

**Water Monitoring Plan:** not applicable

**Ecology:**

**Vegetation Type(s); Dominant Species:** Scattered pinyon and juniper trees are located on the east slopes of the Cricket Mountains in the vicinity of the proposed quarry. The remainder of the area is flatland covered with cold desert vegetation, including: sagebrush, saltbrush, galleta grass, Indian ricegrass, etc. Halogeton has invaded disturbed areas such as road sides and gravel pits. Penstemon nanus, a plant currently considered for threatened species listing is found in several locations along the access/haulage road.

**Percent Surrounding Vegetative Cover:** very sparse < 5%, 60% of the land effected is bare rock.

**Wildlife Concerns:** Wildlife density on the subject lands is low. Reptiles, including a variety of lizards and snakes, are most frequently sighted. Birds commonly nest in the area include: horned larks, and other songbirds, mourning doves, ravens, ferruginous hawks, and red-tailed hawks. Golden and bald eagles, rough-legged hawks and marsh hawks often migrate into this area for wintering. Deer have been observed in the area, although their numbers are low. Approximately 50 antelope inhabit the Cricket Mountain area. Others animals include: coyote, kit fox, bobcat, jackrabbits, and rodents. No critical or otherwise important nesting or wintering areas occur in this general area. Continental Lime is working with Utah DWR in establishing supplemental, adjacent area, water sources (guzzlers) for local wildlife usage.

Surface Facilities: The mine operation will include approximately 160 acres of: quarries, haulage and access roads, topsoil and overburden storage areas, and an on-site crushing and screening plant.

**Mining and Reclamation Plan Summary:**

During Operations:

The quarry operation consists of removing high calcium limestone from an outcropping deposit, crushing and sizing the stone at the quarry, and transporting the crushed and sized limestone to an existing processing plant located 6.5 miles east of the quarry. The processing plant consists of rotary kilns which produce quicklime by high temperature calcination of the limestone. Quicklime is the ultimate commercial product from the operations.

The current production rate at the mine is, 6,700 tons per day of high calcium lime, and 2,700 tons per day of overburden material. Total rock removed per year is approximately 2,350,000 tons.

The mine site is currently permitted under the Utah Mined Land Reclamation Act, the offsite processing plant site is not.

After Operations:

All portions of the mine site will be reclaimed except for @55 acres, which includes: portions of the quarry highwalls (approximately 10 acres), and 6.2 miles of access/haulage road (approximately 45 acres). Limestone fines will be applied to the benches of the quarry before seed application. Steep working faces (highwalls) will not be reclaimed.

There are no buildings or other structures at the quarry site which will require demolition at the end of mine life.

Surety:

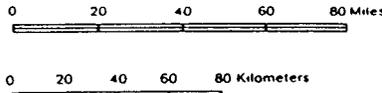
**Amount:** \$293,100.00 in 1998 dollars  
**Form:** Surety Bond  
**Renewable Term:** 5 years

Explanation of Symbols

- ★ State Capital
- ◻ County Seat

Population Key

- Under 250
- 250-499
- 500-999
- 1,000-2,499
- 2,500-4,999
- 5,000-9,999
- 10,000-19,999
- ◉ 20,000-24,999
- ◉ 25,000-49,999
- ◻ 50,000-99,999
- ◻ 100,000-249,999
- ◻ 250,000-999,999
- ◻ 1,000,000 +



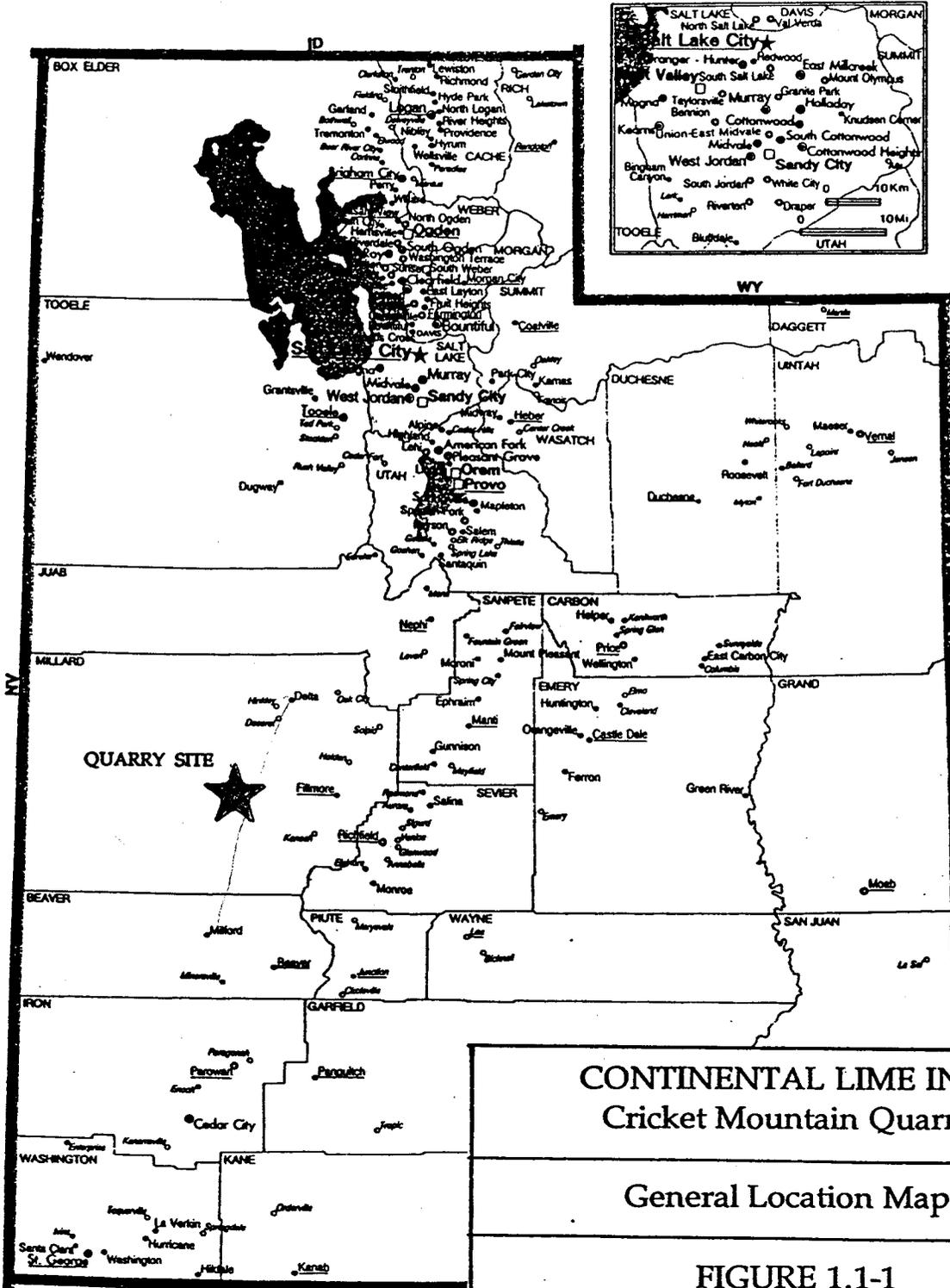
ClearType®

County-Town

UTAH

AMC

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CONTINENTAL LIME INC.  
Cricket Mountain Quarry

General Location Map

FIGURE 1.1-1